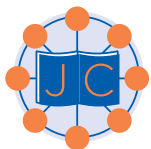


In this article...

- The reasons why NHS settings need to adopt technology-enabled care
- Building nurses' digital confidence and skills through a training programme
- The requirements of digital care for nurses and benefits to patients and staff

Technology-enabled shared care in general practice nursing



Nursing Times
Journal Club

Key points

To ensure the NHS is fit for the future, general practice nurses need to adopt technology-enabled care

Digital modes of care can support shared care between clinicians and patients, and save time and money

A programme used in-person as well as online training and support to help nurses embed digital care

Launching digital care requires IT infrastructure, governance and investment in training

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Abstract To remain fit for purpose in the future, general practices need to adopt technology-enabled care. A project used in-person training sessions along with online resources and support to train general practice nurses to use different digital modes of care with patients. As well as increasing the nurses' confidence and ability to train their colleagues in how to use the technology, the programme benefitted patients by enabling shared care, leading to improved adherence to treatment and self-care. Training programmes like this are vital for NHS clinicians' digital readiness, as is IT infrastructure and governance.

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The use of digital technology in people's everyday lives has escalated over the last decade. The Office for National Statistics (2019) reported that 93% of households in Great Britain now have access to the internet, 87% of adults use the internet most days, and >80% of adults access the internet via a mobile phone, smartphone, laptop, tablet or handheld device. The gap between the proportion of older and younger internet users is also narrowing; 81% of people aged ≥75 years access social media, messaging, online shopping and streaming services (Ofcom, 2019).

Why deliver care digitally?

The NHS has emphasised the significant role of general practice nurses (GPNs) in adopting digital delivery of care to transform the NHS and ensure it is fit for purpose in the future by providing

more-convenient access for patients, personalised community care, and a stronger focus on prevention and population health to drive better patient outcomes and experience (NHS England, 2017). The *NHS Long Term Plan* also highlights the widescale changes that are required to address changing population needs, again focusing on prevention and empowering people to manage their own health using digital tools. It discusses people's right to access digital-first primary care services by 2021; over the next decade technology-enabled care (TEC) has the potential to help address frontline clinician shortages, allowing patients to be cared for and supported at home using remote monitoring and digital tools (NHS England, 2019).

TEC can support shared care between a clinician and a patient, empowering the patient to take more responsibility for managing a health condition – as an example,

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using relevant, trustworthy apps that are recommended by a clinician can empower patients to be less reliant on health professionals, promoting a true shared-care relationship. Telehealth and video consultations can substitute face-to-face clinical appointments and be:

- More convenient for patients and carers;
- Reduce the likelihood of non-attendance (Chambers et al, 2018).

However, it is important that TEC uses technology that patients and carers are comfortable with and have the skills and ability to use, allowing them to introduce digital technology into their healthcare and ensuring digital inclusion. It is important to note that large numbers of people could be excluded from using TEC that would be of benefit ([Bit.ly/NHSDDigitalInclusion](https://bit.ly/NHSDDigitalInclusion)).

This digital ambition also requires frontline clinicians to have the competence, confidence and skills necessary to deliver TEC. As the NHS is falling behind other industries in utilising digital technology sustainably to meet the rising health demands of the ageing population, digital 'blind spots' need to be overcome to adopt and embed these new tools and digital modes of care (Nuffield Trust, 2016). In explaining the *NHS Long Term Plan*, the King's Fund (2019) has said that a shared responsibility for health should deliver better patient care and improve population health, requiring both digital tools and cultural change.

A digitally skilled workforce that can use healthcare technology is crucial to address the healthcare challenges of the 21st century. The Topol Review predicts that >90% of healthcare roles will require specialist digital skills within the next 20 years; TEC will not replace healthcare roles but enhance productivity, thereby improving patient outcomes (Health Education England, 2019). To create new ways of working that fully realise the opportunities available, it is vital that frontline healthcare staff:

- Are ready to use available TEC;
- Can access TEC;
- Understand the digital delivery of care;
- Are confident in the safety, security, clinical governance and appropriateness of the mode of TEC they are using or to which they are signposting a patient.

To achieve this, both the clinician and the patient need to be digitally literate. Health Education England (2018) defines digital literacy as having the "capabilities that fit someone for living, learning,

Box 1. Key elements of a digital champion: the 7Cs

- **Competence** – GPN, manager and patient can:
 - use a range of modes of TEC
 - feed in information
 - act on advice and information
- **Capability** – GPN, manager and patient can achieve best practice in:
 - using a range of modes of TEC
 - feeding in information
 - acting on advice and information in everyday life
- **Capacity** – GPN has protected and prioritised time to initiate and participate in remote care delivery, which they and their manager regard as a key element of their role. IT infrastructure and equipment are available and easily accessible
- **Confidence** – GPN and manager are confident that organisational infrastructure is in line with TEC's code of practice (produced for TECS for Staffordshire and Stoke-on Trent Local Digital Roadmap), including reliability and validity of equipment and its outputs. Patient is confident that TEC is an integral part of clinical best practice, as agreed with GPN, and that GPN will act on receipt of TEC messages
- **Creativity** – GPN and manager can adopt and adapt agreed TEC for different purposes or patients, in line with code of practice
- **Communication** – team or organisation works together, and shares and disseminates digital modes of delivery along with associated clinical protocols and evaluation
- **Continuity** – GPN can interact with at least one patient via TEC along one pathway for a long-term condition or lifestyle habit. GPN cover arranged as appropriate and pre-agreed with patient in line with an agreed shared-care management plan

GPN = general practice nurse; TEC = technology-enabled care; TECS = TEC service
Source: Chambers et al (2018)

working, participating and thriving in a digital society".

Upskilling GPNs

NHS England (2017) developed an action learning programme for GPNs, which includes an action point to "embed and

deliver a radical upgrade in prevention". This is underpinned by Public Health England's (2015) framework to promote interest in, and adoption of, TEC services by GPNs who are 'digitally ready'.

In 2018, the TEC service (TECS) programme (Staffordshire and Stoke-on-Trent Sustainability and Transformation Partnership) trialled a project to upskill GPNs to provide a range of digital modes of TEC for patients managing a long-term condition (LTC) or adverse lifestyle habit. The programme team consisted of a national programme manager, a digital nurse and a digital technology expert. Thirty-eight GPNs participated in this pilot to adopt and embed TEC within their practices as developing digital nurse champions; they deployed at least two modes of TEC for at least three months. As digitally ready GPN champions, they were expected to display all 7Cs (Box 1) no more than eight weeks after their final session.

Following the success of the pilot, the programme was extended to a further 122 GPNs in the four regional GPN delivery boards across England in 2018/19 using the same methodology. Of the 160 GPN participants with whom we worked in total, 159 were female and one was male. They were aged 24-64 years, with 85% being aged >40 years; the mean age was 48 years.

The programme

The GPNs who applied for the programme were provided with:

- A suite of locally developed digital learning resources, which were free to download;
- An electronic tablet to use with patients;
- Support to set up and use the tablets and the TEC;
- Remote, individualised support throughout the programme and for eight weeks after it finished.

This meant all the participants had the knowledge, expertise and confidence required to use the digital technology.

GPNs were told on application that they would need approximately 12 hours' protected time to attend two action learning sessions and to develop and implement their chosen modes of digital technology. This was to give them time to:

- Learn to use the equipment;
- Develop the required protocols;
- Share the learning with their practice team;
- Use the technology with patients in consultations to promote behavioural change in patients' clinical management and adverse lifestyle habits.

Table 1. Digital readiness survey completed by GPNs in the action learning sessions

1. How often do you use digital technology in your practice?

Frequency	Session 1	Session 2
100% of the time	2	21
75% of the time	18	68
50% of the time	38	48
25% of the time	48	17
0% of the time	54	1
Total	160	155

2. To what extent do you agree with this statement: "I can see the benefit of TEC for my patients and my wider team"?

Extent	Session 1	Session 2
Strongly agree	61	132
Somewhat agree	71	22
Neutral	27	1
Somewhat disagree	1	0
Strongly disagree	0	0
Total	160	155

3. To what extent do you agree with this statement: "I feel confident I could share my knowledge of TEC with colleagues to help them incorporate digital technology into their practice"?

Extent	Session 1	Session 2
Strongly agree	33	79
Somewhat agree	70	67
Neutral	42	7
Somewhat disagree	9	2
Strongly disagree	6	0
Total	160	155

4. Which of these statements most closely describes how you feel about using digital technology in your practice?

Feeling	Session 1	Session 2
Leading	26	54
Ready	69	85
Worried	63	16
Lost	2	0
Total	160	155

TEC = technology-enabled care

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In the first action learning session, we asked the GPNs to discuss potential barriers and blind spots that could make the programme difficult. The issues they raised included:

- Lack of support from their wider practice team;
- Resistance from patients;
- Issues with IT infrastructure;
- Technical issues.

The team considered and dispelled these concerns, and reminded the participants about the remote support available to them between sessions. This included:

- An invitation to join a closed WhatsApp group for each group of GPNs, in which they could share peer-to-peer support and receive expert comments from the programme team;
- Individualised support received via email, phone calls, video calls or instant messaging to help participants implement TEC in their practice.

The individualised support included, but was not limited to, identifying the digital tools that would be most suitable, helping to implement/set these up, offering support and guidance when faced with barriers, and encouraging GPNs to roll out TEC across their wider teams; support was important because there were varying levels of skill in each GPN group.

We also shared case studies of other GPNs who had implemented TEC, for inspiration. After the first session, each GPN completed an action plan that identified the modes of TEC on which they were focusing and the support they required from the programme team. The GPNs then started to implement their chosen modes of TEC in their practice, requesting support as and when required.

The second action learning session took place approximately eight weeks after the first, and centred around GPNs' reflections on their experience of implementing their chosen modes of TEC into practice. This included:

- Using social media to engage with hard-to-reach cohorts of patients;
- Using closed groups for peer support;
- Implementing video consultations or clinician-to-patient texting, and any other ways of using TEC identified by the GPNs that benefitted their patients (such as wound photography).

Each GPN highlighted their successes and detailed any barriers they had faced and how they overcame these, or what they needed to do differently and their next steps. They worked together in the session, discussing solutions and generating ideas for different ways of using TEC.



Digital technology can be used to improve patient experiences and outcomes

“It is predicted that over 90% of healthcare roles will require specialist digital skills within the next 20 years”

After the second session, we asked the GPNs to complete a questionnaire we adapted from NHS England's (2016) nursing, midwifery and care staff framework, which examined whether they had attained the 7Cs (Box 1). We also held an evaluation phone call with each participant to assess whether they had adopted and implemented TEC.

Outcomes for nurses

All 160 GPN participants successfully adopted at least two modes of TEC in their practice as part of the programme, and said they thought this would increase as digital delivery of care became more embedded.

Each GPN completed a baseline survey in the first session to self-rate their existing digital readiness; this was repeated by the 155 who participated in the second session to identify any change in their perceived competency and confidence (Table 1).

In the first session, 64% of participants reported using digital technology for patient care <50% of the time, but in the follow-up session 88% said they were now using it ≥50% of the time, with 57% using it ≥75% of the time. In the first session, most GPNs agreed that technology could potentially benefit patients and staff, which helped ensure their investment in improving their personal digital literacy to champion digital solutions.

GPNs were initially worried about potentially significant barriers in their practice: they worried that senior management would not think investing in TEC would provide long-term benefits for staff

and patients, and that clinicians' already-heavy workload would be increased by introducing new ways of working. However, by the second session, 99% of GPNs could see the benefit of using digital technology for their patients and the wider team as part of their practice, and 94% reported feeling confident to share their knowledge of TEC with colleagues to help them incorporate digital technology into their practice.

The number of GPNs who felt ready to use digital technology in their practice also increased; by the second session around 90% were digitally 'ready' or 'leading', compared with 59% in the first session. During the first session, GPNs discussed this lack of confidence, raising concerns about patient information, clinical governance, data protection, information sharing between patient and clinician, and the safety of using social media to interact with patients and share health messages. The programme team responded to these, clarifying misunderstandings and highlighting the need for protocols, disclaimers and standard operating procedures, with supporting information and clinical governance in place.

For comparison, we asked 56 first-year student nurses at Keele University to complete the same digital literacy question; 66% felt digitally 'ready', 32% 'leading', and only 2% felt 'worried'. This highlights the increased digital literacy of the emerging workforce compared with existing staff: 98% of the students felt digitally ready or leading compared with only 59% of the GPN participants we surveyed in their first session. The Queen's Nursing Institute (2018) found that, because many practising clinicians started their career before TEC was introduced and distrust the promised positive impact on healthcare, a cultural change is required to get all healthcare staff engaged. The increase in the digital readiness self-ratings in the second session show how quickly most GPNs learned to apply TEC.

Outcomes for patients

The GPNs reported the TEC as having many benefits for their patients. Evaluation involved each participant receiving a telephone call from a member of the programme team and being emailed a questionnaire eight weeks after the final session was completed. The main themes that emerged were:

- Improved patient engagement and adherence to treatment;
- Increased patient empowerment,

knowledge and education, which led to improved self-care and self-management of their health condition or adverse lifestyle habit;

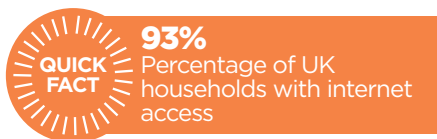
- Improved communications between patient and nurse, resulting in better relationships;
- Improved clinical outcomes and safety, due to GPNs signposting patients to accurate, secure, trusted information rather than them obtaining incorrect information from unreliable sources;
- Time savings for patients and nurses – access to digital services and effective signposting led to more-appropriate use of healthcare services.

In the first session, the GPNs discussed fears that patients would see digital solutions as a way to reduce or replace clinician time and would, therefore, be unwilling to engage. They also worried that older patients would not be able to access or use digital technology. Anecdotally, these concerns often proved unfounded, as patients of all ages wanted to be more involved in managing their condition and embedding genuine shared care with their clinician.

The GPNs highlighted the importance of their own digital confidence and competence in promoting digital tools to patients. This was a key factor in changing patients' perceptions of TEC and encouraging them to adopt digital technology. Many patients already used some form of digital technology in their personal care, but they felt more secure receiving guidance from a clinician about where to access reliable information

All GPN participants reported that it was easy to implement simple, accessible, readily available TEC – such as creating

social media platforms to share health messages or using clinician-to-patient texting to contact patients; doing this allowed them to become more confident and seek more digital solutions while maintaining their relationship with the patient and doing their 'day job'. Adopting digital tools that were already available and accessible was quick and did not interfere with their work or require the GPNs to train patients to use it. The GPNs reported that the majority of patients were happy to incorporate TEC into their care under their GPN's guidance.



Embedding TEC in clinical practice

When it comes to managing LTCs and the increased expectations and requirements of the NHS as a whole, introducing digital modes of TEC as usual service is vital to allow clinicians on the front line to cope with the ever-growing needs and demands of the patient population. If more patients can successfully be encouraged to manage their LTC effectively, efficiently and safely through TEC – underpinning agreed shared-care management plans made with their clinicians – pressures on the front line in primary care will be eased.

There are many examples of how TEC can be used to reduce clinician workload and improve communication and engagement with patients, including using trusted patient-focused apps, sharing health messages via social media, and using video consultations for follow-up appointments. Giving patients opportunities to take a more-active role in their health and wellbeing results in empowerment and changes the patient-clinician relationship (Nuffield Trust, 2016). It also enhances productivity and reduces costs for the NHS, as digital care generally is cheaper than face-to-face services in primary, community and urgent care (QNI, 2018). Patients with LTCs spend approximately 1% of their time in contact with health professionals but account for 70% of the NHS budget (QNI, 2018).

Adopting and embedding TEC in general practice nursing relies on GPNs' digital readiness if financial, clinical and quality benefits are to be delivered. Clinicians need to be confident of their digital literacy to review the TEC options available and assess their suitability for patients; a

positive culture shift is required to embed TEC as usual care. Clinicians and patients who lack basic digital skills are at risk of being left behind and suffering inequalities relating to access and knowledge.

The blind spots in the NHS must be addressed to encourage all staff to embrace TEC as an integral part of daily working and incorporate it in cross-health economy LTC pathways. This requires commitment from commissioners and the NHS, as well as the right IT infrastructure, agreed governance that complies with national regulations and ready access to equipment. However, none of this will happen without investing in the training and development of NHS clinical staff as described here, so they are digitally ready for the challenge.

Staff need to engage positively with digital delivery (with minimum disruption to their everyday tasks), and be aware of areas where they could improve (Newman et al, 2019). GPNs need the tools to assess whether they are capable of fulfilling the 7Cs, identify the gaps and training required to develop and improve, and be aware of the learning resources available that can be integrated into their everyday work. Digitally enabled health and social care creates better outcomes for patients, enables better experiences for staff, and offers opportunities to make working practices more efficient (QNI, 2018). **NT**

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